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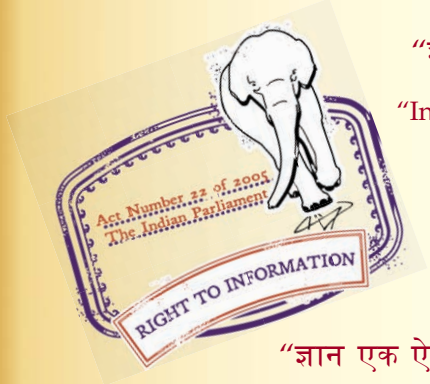
IS 12985 (1990): Nippers, End-cutting - Toggle Lever Assisted-specification [PGD 5: Assembly Hand Tools]



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टोगल लीवर युक्त किनारा काटने की निपरें — विशिष्टि

Indian Standard

NIPPERS, END-CUTTING— TOGGLE LEVER ASSISTED—SPECIFICATION

UDC 621·881·4

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

February 1991

Price Group 1

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards on 18 May 1990, after the draft finalized by the Assembly Hand Tools Sectional Committee had been approved by the Production Engineering Division Council.

Diagonal cutting nippers and end cutting nippers without toggle lever mechanism are not covered in this standard. These have been covered in IS 4378 (Part 1) and IS 4378 (Part 2), respectively.

While preparing this standard, assistance has been derived from ISO 5748 : 1982 'Pliers and nippers — End cutting nippers — Dimensions' issued by the International Organization for Standardization (ISO).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

NIPPERS, END-CUTTING— TOGGLE LEVER ASSISTED—SPECIFICATION

1 SCOPE

1.1 This standard covers the dimensions and other requirements of end cutting nippers assisted with toggle levers for use with hard wire cutting.

2 REFERENCES

2.1 The following Indian Standards are necessary adjuncts to this standard:

IS No.	*Title*
2615 : 1989	General requirements for pliers, pincers and nippers (*first revision*)
11526 : 1986	Nomenclature for pliers, pincers and nippers

3 NOMENCLATURE

3.1 For the purpose of this standard, nomenclatures as given in IS 11526 : 1986 shall apply.

4 DIMENSIONS

4.1 Dimensions for toggle lever assisted end-cutting nippers shall be as given in Table 1.

5 HARDNESS

5.1 The hardness test on nippers shall be carried out in accordance with IS 2615 : 1989.

Body	350-510 *HV* (≈ 35-50 *HRC*)
Near Butting Edges	510-700 *HV* (≈ 50-60 *HRC*)

6 GENERAL REQUIREMENTS

6.1 The material, manufacture, workmanship, preservation, packing and sampling shall be in accordance with IS 2615 : 1989.

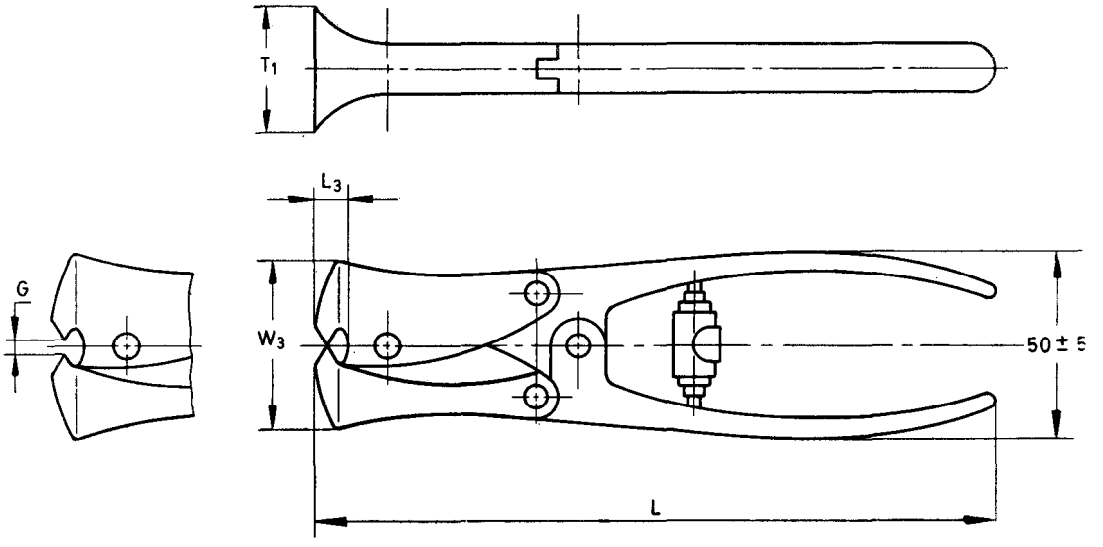
6.2 The cutting edges shall make contact along the whole of their length, so as to meet the soft wire cutting test requirements in accordance with **7.4**.

7 TESTS

7.1 In addition to the tests specified in IS 2615 : 1989; tests laid down in **7.2** and **7.3** shall also be carried out.

Table 1 Dimensions for Nippers, End-Cutting — Toggle Lever Assisted

All dimensions in millimetres.



Nominal Size	L	Tolerance on L	L_3 Max	W_3 Max	G Min	T_1 Max
180	180	± 9	8	45	4	32
200	200	± 10	9	50	4	35

7.2 Handle Load Test

The nipper shall be tested in accordance with **9.5** of IS 2615 : 1989. The load (F) to be applied shall be as given in Table 2 and the permanent set shall not exceed the values given in Table 2.

7.3 Hard Wire Cutting Test

The nippers shall be tested in accordance with **9.1** of IS 2615 : 1989. The test wire diameter and the maximum cutting force (F_1) shall be as given in Table 2.

7.4 Soft Wire Cutting Test

The nippers shall meet the soft wire cutting test requirements in accordance with **9.1.2** of IS 2615 : 1989.

8 DESIGNATION

8.1 Nippers shall be designated by its commonly used name, nominal size and number of this Indian Standard.

Example:

Nipper, end-cutting toggle lever assisted (TL) of nominal size 200 mm shall be designated as:

Nipper End-Cutting (TL) 200 IS 12985

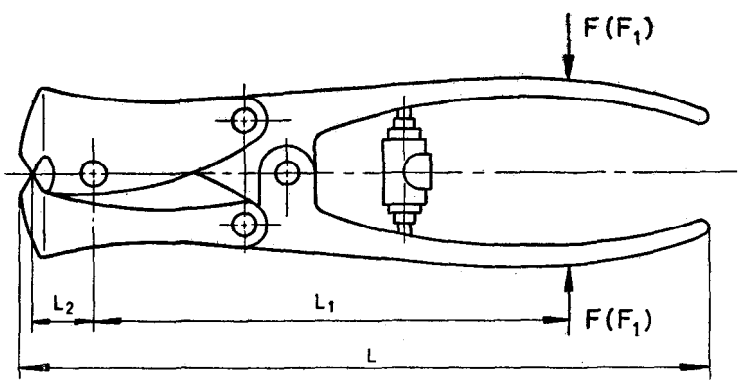
9 MARKING

The nippers shall be marked with nominal size and the indication of the source of manufacture. Year of manufacture if required by purchaser shall also be marked.

Table 2 Test Requirements for Nippers, End-Cutting — Toggle Lever Assisted

(*Clauses* 7 2 *and* 7.3)

All dimensions in millimetres.



Nominal Size L	L_1	L_2	Hard Test Wire Diameter	Max Cutting Force (F_1) N	Load Test	
					Load (F) N	Maximum Permanent Set (s)
180	125	16	1·75	640	750	1
200	140	18	2	790	840	1

NOTE — For characteristics of hard test wire, refer IS 2615 : 1989.

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